

Amendments in the claims

Please amend the claims as follows and add new claims 26-32:

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1. (Currently Amended) A synthetic nucleic acid sequence ~~which~~ that encodes α -galactosidase, wherein at least one non-common codon or less-common codon has been replaced by a common codon and wherein the synthetic nucleic acid has one or more of the following properties: it has a continuous stretch of at least ~~90~~ 150 codons all of which are common codons; it has a continuous stretch of common codons ~~which comprise, which continuous stretch~~ comprises at least ~~33%~~ 60% of the codons of the synthetic nucleic acid sequence; at least 94% or ~~more~~ of the codons in the sequence encoding the protein are common codons ~~and the synthetic nucleic acid sequence encodes a protein of at least about 90 amino acids in length; it is at least 80 base pairs in length, wherein by a common codon is meant Ala (gcc); Arg (cgc); Asn (aac); Asp (gac); Cys (tgc); Gln (cag); Gly (ggc); His (cac); Ile (atc); Leu (ctg); Lys (aag); Pro (ccc); Phe (ttc); Ser (agc); Thr (acc); Tyr (tac); Glu (gag); Val (gtg), Met (atg) and Trp (tgg).~~
2. (Original) The synthetic nucleic acid sequence of claim 1, where the α -galactosidase nucleic acid is inserted into a non-transformed cell.
3. (Currently Amended) The synthetic nucleic acid sequence of claim 1, wherein the number of non- common or less- common codons ~~replaced or remaining~~ is less than 15.

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4. (Currently Amended) The synthetic nucleic acid sequence of claim 1, wherein the number of non- common or less- common codons ~~replaced or remaining~~, taken together, are equal or less than 6% of the codons in the synthetic nucleic acid sequence.
5. (Original) The synthetic nucleic acid sequence of claim 1, wherein all non-common or less-common codons are replaced with common codons.

6. (Original) The synthetic nucleic acid sequence of claim 1, wherein at least 96% of the codons in the synthetic nucleic acid sequence are common codons.

7. (Original) The synthetic nucleic acid sequence of claim 1, wherein at least 98% of the codons in the synthetic nucleic acid sequence are common codons.

B8 8. (Currently Amended) The synthetic nucleic acid sequence of claim 1, wherein all the codons of the synthetic nucleic acid sequence are [of the codons are replaced with] common codons.

9. (Original) A vector comprising the synthetic nucleic acid sequence of claim 1.

10. (Original) A cell comprising the nucleic acid sequence of claim 1.

11. (Original) A method of producing α -galactosidase comprising culturing the cell of claim 10 under conditions in which the nucleic acid is expressed.

B9 12. (Currently Amended) A method for preparing a synthetic nucleic acid sequence encoding α -galactosidase ~~which is at least 90 codons in length~~, comprising:

identifying a non-common codon and a less-common codon in a non-optimized gene sequence which encodes an α -galactosidase protein; and

replacing at least 94% of the non-common and less-common codons with a common codon encoding the same amino acid as the replaced codon,

wherein by a common codon is meant: Ala (gcc); Arg (cgc); Asn (aac); Asp (gac); Cys (tgc); Gln (cag); Gly (ggc); His (cac); Ile (atc); Leu (ctg); Lys (aag); Pro (ccc); Phe (ttc); Ser (agc); Thr (acc); Tyr (tac); Glu (gag); Val (gtg), Met (atg) and Trp (tgg).

13. (Original) The method of claim 12, wherein at least 96% of the non-common and less-common codons are replaced with a common codon encoding the same amino acid as the replaced codon.

14. (Original) The method of claim 12, wherein at least 98% of the non-common and less-common codons are replaced with a common codon encoding the same amino acid as the replaced codon.

15. (Canceled)

16-25. (Withdrawn)

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26. (New) The synthetic nucleic acid sequence of claim 1, wherein the nucleic acid has a continuous stretch of at least 200 common codons.

27. (New) The synthetic nucleic acid sequence of claim 1, wherein the nucleic acid has a continuous stretch of at least 250 common codons.

28. (New) The synthetic nucleic acid sequence of claim 1, wherein the nucleic acid has a continuous stretch of at least 300 common codons.

29. (New) The synthetic nucleic acid sequence of claim 1, wherein the nucleic acid has a continuous stretch of common codons, which continuous stretch comprises at least 70% of the codons of the synthetic nucleic acid sequence.

30. (New) The synthetic nucleic acid sequence of claim 1, wherein the nucleic acid has a continuous stretch of common codons, which continuous stretch comprises at least 80% of the codons of the synthetic nucleic acid sequence.

31. (New) The synthetic nucleic acid sequence of claim 1, wherein the nucleic acid has a continuous stretch of common codons, which continuous stretch comprises at least 90% of the codons of the synthetic nucleic acid sequence.

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32. (New) The synthetic nucleic acid sequence of claim 1, wherein the nucleic acid has a continuous stretch of common codons, which continuous stretch comprises at least 95 % of the codons of the synthetic nucleic acid sequence.
